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AN ESTIMATE OF THE CURRENT LOGISTICAL SUPPORT FOR THE COMMUNIST MAIN FORCE IN SOUTH VIETNAM FROM ABROAD

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FOREWORD

The purpose of this memorandum is to estimate what is believed to be the current logistical support provided to the Communist main military force in South Vietnam from abroad. Estimates appearing in this memorandum are based on the current scale of combat and include the estimated current daily logistical support for the Viet Cong (VC) main force and the Peoples Army of Vietnam (PAVN) force. Estimates also include an allowance for stockpiling. Basic logistic data of the military requirements have been obtained from the Defense Intelligence Agency (DIA); however, due to varying assumptions, the estimated requirements prepared by DIA for the VC and PAVN forces in South Vietnam are considerably higher than the estimates given in this memorandum.

The difference in the two estimates stem from problems in definition and from the quantities of supplies estimated to be consumed by the PAVN force. The DIA includes Class I food for porters and infiltrators as a part of the requirement for the VC main force. The CIA does not regard food for porters and infiltrators as a proper charge against the military requirements of the VC main force. The DIA estimate for the PAVN force on a pounds per man per day basis is nine times the pounds per man per day estimated for the VC. The estimate for the PAVN force includes food and petroleum, but these items are not included for the VC. The CIA recognizes that the PAVN force may be better equipped than the VC and thus has a somewhat higher requirement than the VC, but the discrepancy seems too large in the DIA estimate. Moreover, since the PAVN force is apparently integrated with the VC, it is difficult to justify a PAVN requirement from abroad for food and petroleum when a similar requirement is not estimated for the VC.

An Estimate of the Current Logistical Support for the Communist Main Force in South Vietnam from Abroad

Summary

At the current level of combat the 69,400 man Viet Cong main force requires a minimum of 3.71 tons per day of logistic support from abroad. If this force level is augmented by a 3,600 man PAVN combat element, and if provisions are made for building up a 90 day stockpile over 365 days, the daily logistic support requirement from abroad is increased to 4.60 tons per day. DIA* has also prepared estimates based on a 69,400 VC main force and a 3,600 man PAVN force. There is no provision for stockpiling in the DIA estimate. They estimate current daily logistical support for the 69,400 VC main force to be 9 tons. A 3,600 man PAVN force would require about 4 tons of supplies each day, making a total daily logistical support requirement of 13 tons. If the Class I food requirement of the VC and the Class I food requirement and Class III petroleum requirement of the PAVN are excluded from consideration DIA's estimated total current daily tonnage would amount to 5.35 tons, about 1.41 tons above the 3.94 ton daily resupply requirement for 69,400 VC and 3,600 PAVN forces estimated in this memorandum. If the daily resupply requirement for stockpiling is included the difference between the two estimates becomes even less significant amounting to .75 tons slightly under one ton (5.35-4.60).

* See Attachment I.

Introduction

The Communist main force in South Vietnam is estimated to total 69,400 men, the equivalent of 131 battalions of 530 men each. Of the 69,400 man force, 51,800 are believed to be regular combat troops, and 17,600 combat support troops. In addition the Peoples Army of Vietnam (PAVN) forces are estimated to range in size from a 1,200 to a 3,600 man force. In calculating logistical support requirements, the 80,000 to 100,000 militia or local guerrilla force is discounted on the basis that it is completely logistically supported from within the country.

I. Logistical Support for the 69,400 Man VC Main Force

A. Weapons Class II

Based on 4.2* tons of weapons per Viet Cong infantry battalion, it would require 550.2 tons (4.2 tons x 131 bns.) to equip the entire Viet Cong main force. It is estimated that 21 battalions are now equipped with Chicom weapons of the 7.62 mm family since late 1964. Discounting these 21 battalions, it is assumed that the remaining 110 battalions must be provided with these arms. Therefore a 462 ton requirement of arms (4.2 x 110 bns.) spread over a one year period would equate to a daily tonnage of 1.27 tons per day. To account for replacements due to loss through capture, destruction, or fair wear and tear, it is assumed that 5% of the total estimated weapons must be added to the inventory each year. These replacements would amount to .08 tons per day (4.2 x 131 = 550.2 x 5% = 27.5 ÷ 365 = .08). Total tonnage requirements, therefore, for weapons are estimated to

* DIA estimates total weight of weapons per battalion to be 3.6 tons (7,266.22 + 2,000). Our estimate is 8,466.22 pounds or 4.2 tons and is derived by adding 1,200 pounds (20-12.7 mm mortar x 60 weight of mount for each weapon) to 7,266.22 and dividing by 2,000. (7,266.22 + 1,200 = 8,466.22 ÷ 2,000 = 4.2 tons.)

be 1.35 tons per day (1.27 + .08).

B. Ammunition (Class V)

Average monthly estimates of Viet Cong ammunition expenditure on the basis of reported ARVN initiated encounters with the Viet Cong and VC initiated encounters are available for 1964 and January through April 1965. Monthly ammunition expenditure by the Viet Cong in both types of actions are 54.43 tons (46.5 + 7.93). Equated to a daily basis this would be 1.81 tons. Overall daily ammunition requirements for the Viet Cong would also include .02 tons a day for anti-aircraft expenditures and .06 tons a day for grenades and explosives, bringing total daily ammunition needs to 1.89 tons. Since the 1.89 tons was originally based on a 64,000 man VC force, this total must be increased to take into account what is now believed to be a 69,400 man main force. Therefore, it is estimated that the current daily ammunition resupply requirement for the 69,400 man main force is equal to 2.08 tons (1.89 ÷ 64,000 x 69,400).

C. Rations and POL (Class I and Class III)

Currently it is estimated that there are no external requirements for subsistence and POL items for the 69,400 man VC main force in South Vietnam.

D. Classes II and IV (Except Weapons)

Viet Cong requirements for these classes of supply were computed on the basis of Class II and Class IV consumption rates for U.S. army personnel in a division combat area as outlined on page 300, FM 101-10. It is estimated that the Viet Cong will require outside support for Chemical, Engineer, and Quartermaster

supplies. Ordnance requirements have been computed separately under the category of weapons. Therefore the only Class II and Class IV requirements remaining for consideration are medical and signal supplies. In estimating these requirements it is assumed that the Viet Cong use only 1/10 of the amounts consumed by a U.S. soldier. Therefore Viet Cong requirements would be as follows; for medical supplies 1/10 of .10 or .01, and for signal supplies 1/10 of .75 or .075, for a combined total of .085 pounds per man per day. Since it is believed that 90% of the VC requirements for Class II and Class IV (less weapons) are obtained from within the country only 0.27 tons (64,000 men x .085 pounds x .10 = 0.27) would have been required for the previously estimated 64,000 man VC main force. However, since it is now estimated that the current VC main force in South Vietnam totals 69,400 men, Class II and Class IV requirements would total 0.28 tons per day (0.27 ÷ 64,000 x 69,400).

E. VC Logistics Requirements for the Current Scale of Combat

	Tons
Class I (Food)	Negl.
Class II and IV (Except Weapons)	0.28
Class II (Weapons Only)	1.35*
Class III (POL)	Negl.
Class V (Ammo)	2.08
	3.71 Tons

* Includes 5% replacement factor.

F. Resupply Requirements to Achieve a 90 Day Stockpile in 365 Days

For the purposes of this study it is assumed that the VC are building up

a 90 day stockpile and are accomplishing this over a period of 365 days. Based on a total current daily resupply requirement of 2.44 tons/day (3.71 - 1.27 the daily weapons tonnage minus replacements) would require about .60 tons per day (90 x 2.44 ÷ 365) to achieve a 90 day stockpile in 365 days.

G. Recapitulation

The total daily resupply requirement, then, including stockpiling for the 69,400 VC main force equals 4.31 tons per day (3.71 + .60).

H. VC Logistical Requirements for the Current Scale of Combat in Pounds per Man per Day

Class I (Food)	Negl.
Class II and IV (Except Weapons)	.008
Class II (Weapons Only)	.039
Class III (POL)	Negl.
Class V (Ammo)	$\frac{.058}{.105}$ pounds/man/day

For stockpiling, total daily resupply requirements in pounds per man per day equals .017 (.60 x 2,000 ÷ 69,400). The total daily resupply requirement in pounds per man per day including stockpiling equals .123 pounds (.017 + .106) or alternatively computed as follows; (4.31 x 2,000 ÷ 69,400).

II. Current Daily Logistical Resupply Requirements for PAVN Forces

It is estimated that the strength of PAVN forces may vary between 1,200 men and 3,600 men. Consequently two basic estimates have been prepared; one estimate assuming a force level of 1,200 men and another estimate assuming a 3,600 man force. PAVN forces are also believed to be better equipped than their main force

counterparts. Therefore, the basic requirements of PAVN forces have been increased by 20 percent. In calculating PAVN requirements the following methodology has been used.

$$\frac{\text{Class of supplies for the VC expressed in tons per day}}{69{,}400} \times \frac{x}{1{,}200 \text{ or } 3{,}600} \times 20\%.$$

A. Current Daily Logistical Resupply Requirements Assuming a 1,200 Man PAVN Force

Class I (Food)	Negl.
Class II and IV (Except Weapons)	.0058
Class II (Weapons Only)	.0288
Class III (POL)	Negl.
Class V (Ammo)	.0432 .0778 Tons (155.6) Pounds

B. Daily Resupply Requirements to Achieve a 90 Day Stockpile over a Period of 365 Days

Again for the purposes of this study it is assumed that a 90 day stockpile is being effected over a period of 365 days. Based on a total current daily resupply requirement of .0778 tons per day it would require about .0191 tons per day (90 x .0778 ÷ 365) to achieve a 90 day stockpile in 365 days. Expressed in another way this would amount to 38.2 pounds (2,000 x .0778 x 90 ÷ 365).

C. Recapitulation

The total daily resupply requirements then assuming a 1,200 man PAVN force and including an allowance for stockpiling would be .0969 tons (.0778 + .0191). This would equate to 193.8 pounds (.0778 + .0191 x 2,000), 155.6 pounds daily

resupply excluding stockpiling and 38.2 pounds daily stockpiling resupply requirement. One-thousand two hundred PAVN forces would require .129 pounds per man per day for current logistical support, (155.6 ÷ 1,200) and .031 pounds per man per day to accomplish daily resupply for stockpiling purposes (38.2 ÷ 1,200). The total current daily resupply requirement including stockpiling per man per day for a 1,200 man PAVN force is equal to .160 pounds (.129 + .031) or alternatively computed as follows: (.0778 + .0191 x 2,000 ÷ 1,200).

D. Current Daily Logistical Resupply Requirements Assuming a 3,600 Man PAVN Force

	Tons
Class I (Food)	Negl.
Class II and IV (Except Weapons)	.0172
Class II (Weapons Only)	.0864
Class III (POL)	Negl.
Class V (Ammo)	$\frac{.1296}{.2332}$ (466.4 pounds)

E. Daily Resupply Requirements to Achieve a 90 Day Stockpile over 365 Days

Based on a total current daily resupply requirement of .2332 tons per day it would require about .0575 tons per day (90 x .2332 ÷ 365) to achieve a 90 day stockpile in 365 days. Expressed another way this would amount to 115 pounds (2,000 x .2332 x 90 ÷ 365).

F. Recapitulation

The total daily resupply requirement, then, assuming a 3,600 man PAVN

force and including an allowance for stockpiling would be .2907 tons (.2332 + .0575). This would equate to 581.4 pounds (.2332 + .0575 x 2,000), 466.4 pounds daily resupply excluding stockpiling and 115 pounds daily stockpiling resupply requirement. Three thousand six hundred PAVN forces would require .129 pounds per man per day for current logistical support (466.4 ÷ 3,600) and .031 pounds per man per day to accomplish daily resupply for stockpiling purposes (115 ÷ 3,600). The total current daily resupply requirement including stockpiling per man per day for a 3,600 man PAVN force is equal to .160 pounds per day (.129 + .031) or alternatively computed as follows: (.2332 + .0575 x 2,000 ÷ 365).

III. Recapitulation and Tabulation

A. Daily Logistical Resupply Requirement for 70,600 man VC Main Force	3.71 Tons
B. Daily Logistical Resupply Requirement for 70,600 man VC Main Force	3.71
Including Daily Resupply for Stockpiling	.60 4.31 Tons
C. Daily Logistical Resupply Requirement for 1,200 man PAVN Force	.0778 Tons (155.6 Pounds)
D. Daily Logistical Resupply Requirement for 1,200 man PAVN Force	.0778
Including Daily Resupply for Stockpiling	.0191 .0969 Tons (193.8 Pounds)
E. Daily Logistical Resupply Requirement for 3,600 man PAVN Force	.2332 Tons (466.4 Pounds)
F. Daily Logistical Resupply Requirement for 3,600 man PAVN Force	.2332
Including Daily Resupply for Stockpiling	.0575 .2907 (581.4 Pounds)

G. Daily Logistical Resupply Requirement

for 69,400 man VC Main Force	3.71
and 1,200 man PAVN Force	.0778
	3.7878 Tons

H. Daily Logistical Resupply Requirement

for 69,400 man VC Main Force	4.31
and 1,200 man PAVN Force	.0969
Including Daily Resupply for Stockpiling	4.4069 Tons

I. Daily Logistical Resupply Requirement 3.71

for 69,400 man VC Main Force	.2332
and 3,600 man PAVN Force	3.9432 Tons

J. Daily Logistical Resupply Requirement 4.31

for 70,600 man VC Main Force	.2907
and 3,600 man PAVN Force	4.6007 Tons